

Every Drop is Beautiful

Save Water. Nothing Can Replace It.

The City of Arlington's conservation program is part of a regional effort to help plan for future water supply needs and meet the requirements of the Texas Commission on Environmental Quality and Texas Water Development Board. With reservoir levels decreasing and water capacity below normal, the City of Arlington is asking residents and businesses to comply with City ordinances and use water wisely. The City of Arlington appreciates your commitment to conserving water and we encourage you to save water and money by changing your water use habits today. For more water conservation tips, visit www.SaveArlingtonWater.com.

Why does my water smell musty sometimes?

During certain times of the year, it is not uncommon to experience some taste and odor issues with your tap water. A naturally occurring compound called geosmin is produced by bacteria in soil and algae found in surface water. Extreme temperatures can kill off algae in surface water, which releases the geosmin into the water. While the taste and odor can be unpleasant, geosmin is not toxic or harmful. The water remains safe to drink. The human nose is extremely sensitive to geosmin. If you poured a teaspoon of geosmin into the equivalent of 200 Olympic-sized swimming pools, you would still be able to smell it. The general threshold for human detection is about 15 nanograms per liter (parts per trillion); however people with sensitive pallets can detect these compounds in drinking water when the concentration is as low as 5 nanograms per liter. This is why some

Conservation Tip

Up to 30% of water is lost to evaporation when watering in the afternoons.

customers notice the changes in taste and odor while others do not. Heating the water increases the volatility of these compounds, which explains why the smell is more easily detected when you are in the shower or when used for hot beverages. To make the water taste better, try chilling it, adding ice cubes, a slice of lemon, or a few drops of lemon juice. And remember that the change in taste and odor is only temporary.



For more information:

Water Quality:817-575-8984

Laboratory Services water sample requests, water quality questions or water quality problems. If you have questions concerning this brochure, ask for the laboratory.

Customer Services:.....817-275-5931

Open new or transfer account, billing inquiries, water conservation, water and sewer rates.

Emergency Water, and

Sewer Services (24 hours):817-459-5900

Service interruptions, water leaks, sewer problems

Tarrant Regional Water

District (TRWD):817-237-8585

Texas Commission on Environmental

Quality (TCEQ):.....512-239-1000

To participate in decisions concerning water:

Attend the Arlington City Council meetings, held on the 2nd and 4th Tuesday nights at 6:30 p.m. in the Council Chamber located at City Hall, 101 West Abram Street.

Meeting schedule is posted online at
www.ArlingtonTX.gov/citycouncil/meeting_schedule.html

To view City Council Agenda or to watch
a City Council meeting webcast, please visit
www.ArlingtonTX.gov/citycouncil/agenda.html

Visit our website at:

www.ArlingtonTX.gov/water/CCR

Este informe incluye información importante sobre su agua potable, si necesita ayuda para entender esta información por favor llame al 817-575-8984.

Ban bao cao nay bao gom nhung thong tin can biet ve nuoc uong. Moi chi tiet va thac mac xin lien lac 817-575-8984.

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Photography by Anh Ainsworth

Arlington Water Utilities 2013 Water Quality Report



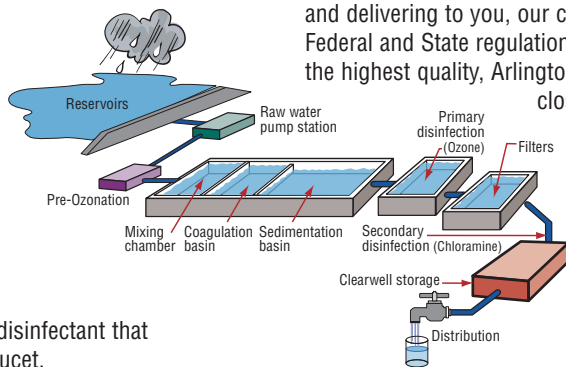
Arlington Water Utilities has a
rated capacity of 172.5 M.G.D.
to meet water demand



As you read through this report, you will notice that drinking water produced by Arlington Water Utilities meets or exceeds all Federal and State drinking water quality regulations. Substances found in Arlington water are well below the maximum allowable levels. The information included in this report reflects the data collected from January 1 through December 31, 2013, unless noted otherwise.

How is Arlington water treated?

The water in Arlington is treated at two state of the art water treatment plants. Ozone is used as the primary disinfectant. Aluminum sulfate and a cationic polymer are added to help dirt and other particles clump together and settle out during treatment. The water is then filtered through granular activated carbon beds to remove smaller particles and substances that are dissolved in the water. The water is then chloraminated (treated with chlorine and then ammonia) as it enters the clearwell for storage. Chloramine is the secondary disinfectant that keeps the water safe on its way to your faucet.



Is Arlington water safe to drink?

Absolutely. Our employees take great pride in producing and delivering to you, our customer, water that meets all Federal and State regulations. To ensure your water is of the highest quality, Arlington Water Utilities Laboratory closely monitors the drinking water at over 100 distribution locations throughout the city. In 2013, the laboratory collected 5,608 samples and performed 12,506 tests monitoring 144 analytes.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of these constituents does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that

The Environmental Protection Agency (EPA) Safe Drinking Water Hotline

limit the amount of certain substances in water provided by public water systems. The treatment process removes these substances from the raw water and provides further protection prior to

sending it to the distribution system. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800-426-4791 or visiting the EPA website at www.epa.gov/safewater.

Health information for Special Populations

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

General information about lead

Where does lead in drinking water come from? If present, lead is introduced into your drinking water from plumbing fixtures and materials, not from the water source. Although lead was banned from use in pipe and solder in 1986, older homes may still have materials containing lead.

Did You Know...

In Arlington we not only use chlorine to disinfect the water but also ammonia. This produces a compound known as chloramines. Chloramines are toxic to fish and must be neutralized before any fish are added to your tank.

Many pet supply stores carry solutions that will neutralize chlorine as well as ammonia. Or you can do the following **prior to adding any fish to the tank:**

For every 10 gallons of water, add 1 teaspoon of household liquid bleach to your tank water and mix. Let the water sit in the tank overnight. Add three times the amount of commercial dechlorinating agent as indicated on the bottle and mix. Let the water sit for at least 24 hours and check the water with a chlorine test kit also available at pet supply stores.

Conservation Tip

When cleaning out fish tanks, give the nutrient-rich water to your plants.

Where does Arlington drinking water come from?

Arlington purchases its water for treatment from the Tarrant Regional Water District. The water is taken from four reservoirs. Cedar Creek, Richland-Chambers and Lake Benbrook supply the John F. Kubala Water Treatment Plant. Lake Arlington supplies the Pierce-Burch Water Treatment Plant.

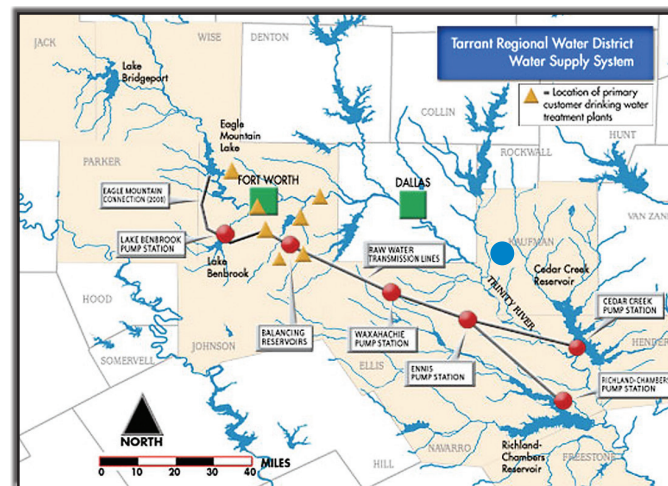
Cryptosporidium Monitoring Information:

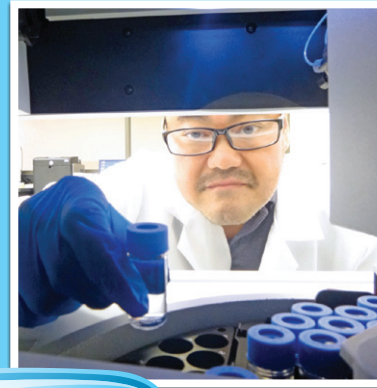
In 2013 Tarrant Regional Water District monitored all raw water sources for Cryptosporidium and found none in the source waters servicing Arlington.

Cryptosporidium is a microscopic, disease-causing parasite, housed in a hard-shelled egg-shaped oocyst.

When ingested, the oocyst splits open, releasing sporozoites. These sporozoites invade the lining of the gastrointestinal tract and can cause an illness called cryptosporidiosis. Cryptosporidiosis is typically an acute short-term infection but can become severe and non-resolving in children and immuno-compromised individuals.

In addition to coagulation and filtration, Arlington uses Ozone (the primary disinfectant) to further protect against Cryptosporidium.





Substances Expected to be in Drinking Water

The City of Arlington and the State of Texas both analyze your drinking water. Any regulated substances that were detected during the last year are shown in Table A. As shown in the table, all are well below the established maximum contaminant levels. All water dissolves substances from the ground as it flows over and through it. Substances that may be present in raw water include such things as:

- 1) microbes such as viruses and bacteria that come from septic systems, agricultural livestock operations and wildlife;
- 2) salts and metals that can be naturally occurring or the result of urban storm water runoff, industrial or domestic wastewater discharges or farming;
- 3) pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff or residential uses;
- 4) organic chemical substances that include synthetic and volatile organic chemicals that are by-products of industrial processes and can also come from gas stations and urban storm water runoff;
- 5) radioactive substances that are naturally occurring.

Substances may be found in drinking water that may cause taste, color, or odor problems but are not necessarily causes for health concerns. For more information, please call Laboratory Services at 817-575-8984.

Conservation Tip

One drip per second adds up to five gallons per day. Check your faucets and showerheads for leaks.

Conservation Tip

Water your yard for longer periods of time on fewer days to encourage deep root growth and drought tolerance.

Conservation Tip

Replace old toilets with low flow models that use 1.6 gallons or less per flush and save up to 18% on interior water use.

Emerging Water Quality Issues

Arlington Water Utilities is committed to protecting public health and meets or surpasses all state and federal health standards for tap water. Under the 1996 amendments to the federal Safe Drinking Water Act, the Environmental Protection Agency is required once every five years to issue a new list of up to 30 unregulated contaminants for which water systems must monitor. To help advance the science of drinking water, we have been collecting data for the EPA regarding the occurrence of these compounds in our water supply, which is the first step in determining whether they should be regulated. These compounds include Hexavalent Chromium, Cobalt, Molybdenum, Strontium, Vanadium, Chlorate, 1,4 Dioxane, Perfluorinated Alkyl Acids, several unregulated volatile organic compounds, and several hormones. The presence of a compound does not necessarily equate to a health risk, however the concentration of a compound is a far more important factor in determining whether there are health implications. To learn more about the Unregulated Contaminant Monitoring Rule, visit: www.DrinkTap.org

Just try living without it.

SAVE WATER. Nothing can replace it.

Visit www.SaveArlingtonWater.com. Learn how to do your part in saving our most precious resource – water.





Table A. Regulated Substances. These substances are regulated or are required to be monitored and were detected in Arlington tap water in 2013. None of the detected substances exceeded the regulated limits.

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Possible Source
Atrazine	ppb	0.33	0.17	0.64	3		Runoff from herbicide used on row crops
Barium (2012)	ppm	0.053	0.049	0.056	2	2	Erosion of natural deposits
Bromate ³	ppb	<5	<5	<5	10	10	Byproduct of drinking water disinfection
Chloramines ²	ppm	3.5	3.3	3.7	MRDL=4	MRDLG=4	Water additive used to control microbes
Fluoride	ppm	0.53	0.2	0.8	4	4	Water additive promoting strong teeth
Nitrate as Nitrogen	ppm	0.422	0.1	0.851	10	10	Runoff from fertilizers
Nitrite as Nitrogen	ppm	0.042	0.004	0.17	1	1	Runoff from fertilizers
Radioactive (2011)							
Radium 228	pCi/L	<1.0	<1.0	<1.0	5	NE	Decay of natural, man-made deposits
Beta/Photon Emitters	pCi/L	<4.0	<4.0	<4.0	50	NE	Decay of natural, man-made deposits
Gross Alpha Particle Activity	pCi/L	<2.0	<2.0	<2.0	15	NE	Decay of natural, man-made deposits
Total Coliform ⁴	%	NA	ND	.54%	5% **	NA	Naturally present in the environment
Total Organic Carbon (TOC)							Naturally present in the environment
PB Plant (raw)	ppm	5.6	5.1	6.3			(PB = Pierce-Burch Plant)
PB Plant (drinking)	ppm	3.6	3.2	4.3			
PB Removal ratio ⁵	remov. ratio	1.0	0.7	1.2			
JK Plant (raw)	ppm	5.3	4.4	6.3			(JK = John F. Kubala Plant)
JK Plant (drinking)	ppm	3.1	2.7	3.6			
JK Removal ratio ⁵	remov. ratio	1.2	0.6	1.5			
Total Trihalomethanes ²	ppb	12.4	10.2	13.8	80	NE	By-product of drinking water chlorination
Haloacetic Acids (HAA5) ²	ppb	5.3	5.1	5.5	60	NE	By-product of drinking water chlorination
Turbidity ⁶							Soil runoff
Highest single measurement	NTU	0.13	0.03	0.43	TT=1.0	0	
% of samples < 0.3 NTU	%	99.8%	NA	NA	TT=95%	NA	
Substance	Units	Action Level	No. Sites > Action Level	90th %-tile	Range	Possible Source	
Copper (2012) ¹	ppm	1.3	0	0.157	0.003-0.244	Corrosion of household plumbing systems	
Lead (2012) ¹	ppb	15	0	0.0015	ND-0.0057	Corrosion of household plumbing systems	

¹Instead of MCLs for lead and copper, EPA requires that 90 percent of water samples obtained from customers' taps contain less than the Action Level for each metal. Arlington's most recent survey of the required 50 homes shows no home exceeded the action level (sampling required every 3 years.) ²Compliance is based on a calculated running annual average of all samples at all sites. ³Compliance is based on a calculated running annual average of the quarterly averages. ⁴Coliform bacteria are used as indicators of microbial contamination of drinking water because they are easily detected and found in the digestive tract of warm blooded animals. While not themselves disease producers, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms. Therefore their absence from water is a good indication that the water is bacteriologically safe for human consumption. ⁵The MCL for total coliform is the presence of coliform bacteria in 5% or more of the monthly samples. ⁶Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed. Based on running annual average of ratios. TCEQ requires a removal ratio of ≥ 1.0 . ⁷Turbidity has no health effects. However, it can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms that include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Conservation Tip

Use a rain barrel to harvest rainwater from gutters for use in gardens and on landscapes. The City offers free classes on how to build your own rain barrel.



Table Definitions

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

<(xxxx) less than the amount listed.

\geq (xxx) equal to or greater than the amount listed.

Maximum Contaminant Level Goal (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Maximum Residual Disinfectant Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

NA Not applicable

ND (Not detected) No level of the parameter was detected.

NE Not established

NTU (Nephelometric Turbidity Units) A unit used when measuring turbidity, a measure of the cloudiness of the water.

pCi/L (picocuries per Liter) A measure of radioactivity in the water.

ppb (parts per billion, ug/L) A unit of measurement roughly equal to 1 drop in 100,000 gallons.

ppm (parts per million, mg/L) A unit of measurement roughly equal to 1 drop in 100 gallons.

TT (Treatment Technique) A required process intended to reduce the level of a contaminant in drinking water.



Table B. Unregulated Substances. These substances are not currently regulated by EPA. The purpose of monitoring for these contaminants is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Possible Source
Chloroform	ppb	5.2	3.6	6	Not Regulated	NE	By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes.
Bromodichloromethane	ppb	4.3	4.2	4.5	Not Regulated	NE	
Chlorodibromomethane	ppb	3.5	3.2	3.9	Not Regulated	60	
Bromoform	ppb	0.5	0.1	1	Not Regulated	NE	
Dichloroacetic Acid	ppb	3.87	3.66	4.21	Not Regulated	NE	By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes.
Bromoacetic Acid	ppb	0.59	0.18	1.09	Not Regulated	NE	
Dibromoacetic Acid	ppb	0.7	0.25	1.28	Not Regulated	NE	
Chloroacetic Acid	ppb	0.06	ND	0.25	Not Regulated	NE	
Trichloroacetic Acid	ppb	0.05	ND	0.14	Not Regulated	300	Volatile Organic Compounds are used in many industrial processes and found in personal care products
Chlorodifluoromethane	ppb	4.4	0.842	7.95	Not Regulated	NE	
Bromochloromethane	ppb	0.126	0.116	0.136	Not Regulated	NE	
Molybdenum	ppb	1.6	1.49	1.86	Not Regulated	40	Naturally occurring in rocks and soil
Strontium	ppb	255	252	259	Not Regulated	4000	Naturally occurring in minerals
Vanadium	ppb	0.714	0.505	0.812	Not Regulated	21	Naturally occurring in many minerals, fossil fuel deposits



Other Substances of Interest

Substance	Units	Avg	Min	Max
Total:				
Alkalinity	ppm	88	74	109
Hardness	ppm	102	76	120
Hardness	grains/gal.	5.9	4.4	7.0
Calcium	ppm	34	25	43
Sodium	ppm	28	19	31
Magnesium	ppm	3.4	3.1	3.6
Chloride	ppm	21	10	25
pH	units	7.8	6.8	8.2